AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (CURRENTLY AMENDED) A method of diagnosing a patient, the method ~~using an internal imaging antibody~~ comprising:

(a) selecting a ligand that binds to a heat stable toxin biological receptor ~~selected from at least one of steroids, cardiac glycosides, somatostatin, bombesin, cholecystokinen, neurotensin, and heat stable toxin~~;

(b) ~~preparing a first generation antigen of the receptor binding ligand~~;

[[(c)]] preparing a first generation of monoclonal antibodies against the receptor binding ligand ~~first generation antigen and isolating monoclonal antibodies directed to the receptor binding ligands~~;

[[(d)]] (c) isolating the first generation of monoclonal antibodies;

(d) preparing monoclonal anti-idiotypic antibodies against the first generation of monoclonal antibodies to result in ~~and isolating the~~ internal image anti-receptor antibodies from ~~said~~ the anti-idiotypic antibodies;

(e) isolating the internal image anti-receptor antibodies from the anti-idiotypic antibodies;

[[(e)]] (f) conjugating ~~said~~ the internal image anti-receptor antibodies to a photoactive ~~molecule~~ dye;

[[(f)]] (g) administering an effective concentration of the ~~internal image antibody~~ conjugate [[in]] of step (e) to a patient ~~and allowing the conjugate to accumulate at a target site within the patient; and~~;

(h) allowing the conjugate to accumulate at a target site within the patient; and

[[g)]] (j) exposing ~~said~~ the target site to light sufficient to activate the photoactive ~~molecule~~ dye to image the target site.

2. (CURRENTLY AMENDED) The method of claim 1 wherein said receptor-binding ligand is selected from the group consisting of drugs, hormones, peptides, carbohydrates, ~~nucleosides,~~ peptidomimetic, and glycomimetics~~, and biosynthetic intermediates~~.

3. (CURRENTLY AMENDED) The method of claim 1 wherein said ~~photoactive molecule is a~~ dye is selected from the group consisting of cyanines, indocyanines, phthalocyanines, rhodamines, phenoxazines, phenothiazines, phenoselenazines, fluoresceins, porphyrins, benzoporphyrins, squaraines, corrins, croconiums, azo compounds, methine dyes, and indolenium.

4. (PREVIOUSLY PRESENTED) The method of claim 1 wherein said effective concentration of the internal image antibody conjugate ranges from about 0.1 mg/kg body weight to about 500 mg/kg body weight.

5. (PREVIOUSLY PRESENTED) The method of claim 1 wherein the effective concentration of the internal image antibody conjugate ranges from about 0.5 mg/kg body weight to about 2 mg/kg body weight.

6. (PREVIOUSLY PRESENTED) The method of claim 1 wherein imaging is selected from at least one of absorbance, fluorescence, scattering, and combinations thereof.

7. (PREVIOUSLY PRESENTED) The method of claim 1 wherein said target site is selected from the group consisting of tumors, lesions, necrotic regions, ischemic regions, thrombic regions, inflammatory regions, impaired vasculature, and combinations thereof.

8-16. (CANCELED)

17. (CURRENTLY AMENDED) A method of ~~diagnosing a condition in~~ imaging a body region of a patient, the method comprising

administering to a patient a photodiagnostic composition comprising an internal image antibody to a heat stable toxin biological receptor conjugated to a photoactive dye at a dose effective for photodiagnosis, the dye selected from the group consisting of cyanines, indocyanines, phthalocyanines, rhodamines, phenoxazines, phenothiazines, phenoselenazines, fluoresceins, porphyrins, benzoporphyrins, squaraines, corrins, croconiums, azo compounds, methine dyes, and indolenium, and;

~~accumulating said photodiagnostic composition at said body region to be diagnosed;~~

thereafter providing light sufficient to activate said photoactive dye in said body region to image said body region ~~and diagnose a condition in said patient~~.

18. (CANCELED)

19. (PREVIOUSLY PRESENTED) The method of claim 17 wherein light is provided at a wavelength in the range of about 300 to 1200 nm.

20. (PREVIOUSLY PRESENTED) The method of claim 17 wherein imaging is by a method selected from the group consisting of absorbance, fluorescence, scattering, and combinations thereof.

21. (PREVIOUSLY PRESENTED) The method of claim 17 wherein said effective dose is in the range of about 0.1 mg/kg to about 500 mg/kg body weight.

22-27. (CANCELED)

28. (NEW) An anti-receptor internal image antibody conjugate of formula 1

Ab - Dye

wherein Ab is a whole or fragmented internal image antibody which retains binding affinities directed at a heat stable toxin receptor, dye is a fluorophore or a chromophore capable of absorbing or emitting light having a wavelength in the range of 300-1200 nm, and optionally a linker L linking Ab and Dye represented as Ab-L-Dye, wherein L is selected from the group consisting of -HNCONH-, -HNCSNH-, -HNCO-, -CONH-, $-S(CH_2)_mCONH-$, and -S-(N-succinimido)-$(CH_2)_nCONH-$ where m and n vary from 1 to 10.

29. (NEW) The conjugate of claim 28 wherein Dye is selected from the group consisting of cyanines, indocyanines, phthalocyanines, rhodamines, phenoxazines, phenothiazines, phenoselenazines, fluoresceins, squaraines, corrins, croconiums, azo compounds, methine dyes, indolenium, and combinations thereof.

30. (NEW) The method of claim 1 where binding is used to diagnose colorectal cancer.

31. (NEW) The method of claim 17 where binding is used to diagnose colorectal cancer.